



PubMed	Nucleotide	Protein	Genome	Structure	PopSet	Taxonomy	OMIM	Books	
Search	PubMed	▼	for					Go	Clear
Limits		Preview/Index		History		Clipboard		Details	

Display	Abstract	▼	Sort	▼	Save	Text	Clip Add	Order
---------	----------	---	------	---	------	------	----------	-------

1: Mol Cell Biol 1984 Dec;4(12):2858-64

[Related Articles](#) [Links](#)

Cell cycle-dependent expression of thymidylate synthase in *Saccharomyces cerevisiae*.

Storms RK, Ord RW, Greenwood MT, Mirdamadi B, Chu FK, Belfort M.

Synchronous populations of *Saccharomyces cerevisiae* cells, generated by two independent methods, have been used to show that thymidylate synthase, in contrast to the vast majority of cellular proteins thus far examined, fluctuates periodically during the *S. cerevisiae* cell cycle. The enzyme, as assayed by two different methods, accumulated during S period and peaked in mid to late S phase, and then its level dropped. These observations suggest that both periodic synthesis and the instability of the enzyme contribute to the activity profile seen during the cell cycle. Accumulation of thymidylate synthase is determined at the level of its transcript, with synthase-specific mRNA levels increasing at least 10-fold to peak near the beginning of S period and then falling dramatically to basal levels after the onset of DNA synthesis. This mRNA peak coincided with the time during the cell cycle when thymidylate synthase levels were increasing maximally and immediately preceded the peak of DNA synthesis, for which the enzyme provides precursor dTMP.

PMID: 6396509 [PubMed - indexed for MEDLINE]

Display	Abstract	▼	Sort	▼	Save	Text	Clip Add	Order
---------	----------	---	------	---	------	------	----------	-------

[Write to the Help Desk](#)
[NCBI | NLM | NIH](#)
[Department of Health & Human Services](#)
[Freedom of Information Act | Disclaimer](#)

Welcome to STN International! Enter x:x

LOGINID:sssptal656sxc

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * Welcome to STN International * * * * *

NEWS 1 Web Page URLs for STN Seminar Schedule - N. America
NEWS 2 Apr 08 "Ask CAS" for self-help around the clock
NEWS 3 Apr 09 REILSTEIN: Reload and Implementation of a New Subject Area
NEWS 4 Apr 09 CDB will be removed from STN
NEWS 5 Apr 19 US Patent Applications available in IFICDB, IFIPAT, and
IFIUDB
NEWS 6 Apr 22 Records from IP.com available in CAPLUS, HCAPLUS, and
ZCAPLUS
NEWS 7 Apr 22 BIOSIS Gene Names now available in TOXCENTER
NEWS 8 Apr 22 Federal Research in Progress (FEDRIP) now available
NEWS 9 Jun 03 New e-mail delivery for search results now available
NEWS 10 Jun 10 MEDLINE Reload
NEWS 11 Jun 10 ECTFULL has been reloaded
NEWS 12 Jul 03 FORGE no longer contains STANDARDS file segment
NEWS 13 Jul 21 USAN to be reloaded July 23, 2002;
saved answer sets no longer valid
NEWS 14 Jul 29 Enhanced polymer searching in REGISTRY
NEWS 15 Jul 30 NETFIRST to be removed from STN
NEWS 16 Aug 06 CANCERLIT reload
NEWS 17 Aug 06 PHARMAMarketLetter(PHARMAML) - new on STN
NEWS 18 Aug 08 NTIS has been reloaded and enhanced
NEWS 19 Aug 19 Aquatic Toxicity Information Retrieval (AQUIRE)
now available on STN
NEWS 20 Aug 19 IFIPAT, IFICDB, and IFIUDB have been reloaded
NEWS 21 Aug 19 The MEDLINE file segment of TOXCENTER has been reloaded
NEWS 22 Aug 16 Sequence searching in REGISTRY enhanced
NEWS 23 Sep 02 JAPIO has been reloaded and enhanced
NEWS 24 Sep 16 Experimental properties added to the REGISTRY file
NEWS 25 Sep 16 Indexing added to some pre-1967 records in CA/CAPLUS
NEWS 26 Sep 16 CA Section Thesaurus available in CAPLUS and CA
NEWS 27 Oct 01 CASREACT Enriched with Reactions from 1907 to 1985
NEWS 28 Oct 21 EVENTLINE has been reloaded
NEWS 29 Oct 24 REILSTEIN adds new search fields
NEWS 30 Oct 24 Nutraceuticals International (NUTRACEUT) now available on
STN
NEWS 31 Oct 25 MEDLINE SUI run of October 8, 2002

NEWS EXPRESS October 14 CURRENT WINDOWS VERSION IS V6.01,
CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP),
AND CURRENT DISCOVER FILE IS DATED 01 OCTOBER 2002
NEWS HOURS STN Operating Hours Plus Help Desk Availability
NEWS INTER General Internet Information
NEWS LOGIN Welcome Banner and News Items
NEWS PHONE Direct Dial and Telecommunication Network Access to STN
NEWS WWW CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that
specific topic.

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 15:17:34 ON 08 NOV 2002

=> FIL BIOSIS MEDLINE EMBASE LIFESCI CAPLUS

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'BIOSIS' ENTERED AT 15:17:42 ON 08 NOV 2002

COPYRIGHT (C) 2002 BIOLOGICAL ABSTRACTS INC.(R)

FILE 'MEDLINE' ENTERED AT 15:17:42 ON 08 NOV 2002

FILE 'EMBASE' ENTERED AT 15:17:42 ON 08 NOV 2002

COPYRIGHT (C) 2002 Elsevier Science B.V. All rights reserved.

FILE 'LIFESCI' ENTERED AT 15:17:42 ON 08 NOV 2002

COPYRIGHT (C) 2002 Cambridge Scientific Abstracts (CSA)

FILE 'CAPLUS' ENTERED AT 15:17:42 ON 08 NOV 2002

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2002 AMERICAN CHEMICAL SOCIETY (ACS)

=> s test (w)compound (2A) uracil (2a) misincorporation

L1 0 TEST (W) COMPOUND (2A) URACIL (2A) MISINCORPORATION

=> s test (2a)compound (2A) uracil (2a) misincorporation

L2 0 TEST (2A) COMPOUND (2A) URACIL (2A) MISINCORPORATION

=> s test (2a)compound and uracil (2a) misincorporation

L3 0 TEST (2A) COMPOUND AND URACIL (2A) MISINCORPORATION

=> s test (2a)compound and uracil (2a) misincorporation

L4 0 TEST (2A) COMPOUND AND URACIL (2A) MISINCORPORATION

=> uracil misincorporation

URACIL IS NOT A RECOGNIZED COMMAND

The previous command name entered was not recognized by the system.

For a list of commands available to you in the current file, enter

"HELP COMMANDS" at an arrow prompt (=>).

=> s uracil misincorporation

L5 151 URACIL MISINCORPORATION

=> s 15 and DNA (w) glycosylase

L6 47 L5 AND DNA (W) GLYCOSYLASE

=> s 15 and test (s) compound

L7 0 L5 AND TEST (S) COMPOUND

=> s 15 and test
L8 12 L5 AND TEST

=> dup rem 18
PROCESSING COMPLETED FOR L8
L9 7 DUP REM L8 (5 DUPLICATES REMOVED)

=> d 18 1-7

L9 ANSWER 1 OF 7 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AN 2001:296469 BIOSIS
DN PREV200100296469
TI Effect of controlled folate intake on misincorporation of uracil in DNA
of elderly women.
AU Keesling, Susan E. (1); Herrlinger-Garcia, Kelli (1); Rampersaud, Gail C.
(1); Theriaque, Douglas W. (1); Gregory, Jesse F. (1); Bailey, Lynn B.
(1); Knuwell, Gail P. A. (1)
CS (1) University of Florida, Gainesville, FL, 32611-0370 USA
SO FASEB Journal, (March 7, 2001) Vol. 15, No. 4, pp. A611. print.
Meeting Info.: Annual Meeting of the Federation of American Societies for
Experimental Biology on Experimental Biology 2001 Orlando, Florida, USA
March 31-April 04, 2001
ISSN: 0892-6638.
DT Conference
LA English
SL English

L9 ANSWER 2 OF 7 MEDLINE
AN 2001324945 MEDLINE
DN 21192543 PubMed ID: 11295154
TI The role of folic acid and Vitamin B12 in genomic stability of human
cells.
AU Fenech M
CS CSIRO Health Sciences and Nutrition, Adelaide, Australia..
michael.fenech@hsn.csiro.au
SO MUTATION RESEARCH, (2001 Apr 18) 475 (1-2) 57-67. Ref: 87
Journal code: 0400763. ISSN: 0027-5107.
CY Netherlands
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LA English
FS Priority Journals
EM 200106
ED Entered STN: 20010611
Last Updated on STN: 20010611
Entered Medline: 20010607

L9 ANSWER 3 OF 7 MEDLINE
AN 2000387906 MEDLINE
DN 20347366 PubMed ID: 10888643
TI The interaction of vpr with uracil DNA glycosylase modulates the human
immunodeficiency virus type 1 In vivo mutation rate.
AU Mansky L M; Preveral S; Selig L; Benarous R; Benichou S
CS Department of Molecular Virology, Immunology, and Medical Genetics,
Center
for Retrovirus Research, and Comprehensive Cancer Center, Ohio State
University Medical Center, Columbus, Ohio 43210, USA.. mansky.3@osu.edu
NC GM 56615 (NIGMS)

SO JOURNAL OF VIROLOGY, (2000 Aug) 74 (15) 7039-47.
Journal code: 013724. ISSN: 0022-538X.

CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals; AIDS
EM 200008
ED Entered STN: 20000818
Last Updated on STN: 20000818
Entered Medline: 20000810

L9 ANSWER 4 OF 7 MEDLINE
AN 97250530 MEDLINE
DN 97250530 PubMed ID: 9096386
TI Folate deficiency causes **uracil misincorporation** into human DNA and chromosome breakage: implications for cancer and neuronal damage.

AU Blount B C; Mack M M; Wehr C M; MacGregor J T; Hiatt R A; Wang G; Wickramasinghe S N; Everson R B; Ames B N
CS Department of Cell and Molecular Biology, University of California, Berkeley 94720, USA.

NC CA30918 (NCI)
ES01496 (NIEHS)

SO PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, (1997 Apr 1) 94 (7) 3290-5.
Journal code: 7505676. ISSN: 0027-8424.

CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199705
ED Entered STN: 19970514
Last Updated on STN: 19970514
Entered Medline: 19970508

L9 ANSWER 5 OF 7 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE

1
AN 1994:488203 BIOSIS
DN PREV199497421203
TI Induction of resistance to fluorodeoxyuridine cytotoxicity and DNA damage in human tumor cells by expression of Escherichia coli deoxyuridinetriphosphatase.

AU Canman, Christine E.; Radany, Eric H.; Parsels, Leslie A.; Davis, Mary A.;

Lawrence, Theodore E.; Maybaum, Jonathan
CS 4701 Upjohn Cent. Clinical Pharmacology, Univ. Michigan Med. Sch., Ann Arbor, MI 48109-0504 USA

SO Cancer Research, (1994) Vol. 54, No. 9, pp. 2296-2298.
ISSN: 0008-5472.

DT Article
LA English

L9 ANSWER 6 OF 7 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE

2
AN 1994:182096 BIOSIS
DN PREV199497195096
TI Bone marrow cells from vitamin B-12- and folate-deficient patients misincorporate uracil into DNA.

AU Wickramasinghe, S. N. (1); Fida, S.
CS (1) Dep. Haematol., St. Mary's Hosp. Med. Sch., Norfolk Place, London W2 1PG UK

SO Blood, (1994) Vol. 83, No. 6, pp. 1656-1661.
 ISSN: 0006-4971.
 DT Article
 LA English

 LP ANSWER 7 OF 7 CAPLUS COPYRIGHT 2002 ACS
 AN 1979:17749 CAPLUS
 DU 99:17749
 TI Accumulation of small fragments of DNA in isolated HeLa cell nuclei due
 to transient incorporation of dUMP
 AU Wist, Erik; Enghjem, Olav; Krokan, Hans
 CS Inst. Med. Biol., Univ. Tromsøe, Tromsøe, Norway
 SO Biochim. Biophys. Acta (1978), 520(2), 253-70
 CODEN: BBACAQ; ISSN: 0006-3002
 DT Journal
 LA English

=> s l6 and test
 L10 1 L6 AND TEST

=> d l10

L10 ANSWER 1 OF 1 MEDLINE
 AN 2000387906 MEDLINE
 DU 20347366 PubMed ID: 10888643
 TI The interaction of vpr with uracil **DNA glycosylase**
 modulates the human immunodeficiency virus type 1 In vivo mutation rate.
 AU Mansky L M; Preveral S; Selig L; Benarous R; Benichou S
 CS Department of Molecular Virology, Immunology, and Medical Genetics,
 Center for Retrovirus Research, and Comprehensive Cancer Center, Ohio State
 University Medical Center, Columbus, Ohio 43210, USA.. mansky.3@osu.edu
 NC GM 56615 (NIGMS)
 SO JOURNAL OF VIROLOGY, (2000 Aug) 74 (15) 7039-47.
 Journal code: 0113724. ISSN: 0022-538X.
 CY United States
 DT Journal; Article; (JOURNAL ARTICLE)
 LA English
 FS Priority Journals; AIDS
 EM 200003
 ED Entered STN: 20000818
 Last Updated on STN: 20000818
 Entered Medline: 20000810

=>

---Logging off of STN---

=>

Executing the logoff script...

=> LOG Y

COST IN U.S. DOLLARS

SINCE FILE
 ENTRY

TOTAL
 SESSION

FULL ESTIMATED COST

74.71

74.92

STN INTERNATIONAL LOGOFF AT 15:40:54 ON 08 NOV 2002